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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,321	07/31/2000	THOMAS C. HILL	PF01869NA	4702

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EXAMINER	
JACKSON, BLANE J	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/629,321	HILL ET AL.	
	Examiner	Art Unit	
	Blane J. Jackson	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4,6 and 13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *13* is/are allowed.

6)☒ Claim(s) *4 and 6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 July 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Affidavit

The affidavit filed on 11 August 2006 under 37 CFR 1.131 is sufficient to overcome the Hinckley reference as regards to claim 6.

Response to Amendment

Upon further review of the Advisory filed 23 August 2006 and the applicant's amendment filed 01 September 2006, the examiner has reconsidered the allowability of claim 6 and has applied previously cited prior art in the rejection to follow. Consequently, the amendment filed 01 September 2006 will not be entered and the Final Rejection filed 13 June 2006 is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US 5,953,677) in view of Krishnamurthy et al. (2001/0033556).

As to claim 4, Sato teaches at least one sensor communicating sensor information to a communication device within a network to control a power consumption level of the communication device wherein the communication device uses *a program to*

look for a movement sensor for the sensor information to reduce the power consumption level of the communication device in response to the sensor information (figures 1 and 2, column 2, lines 17 to column 3, line 51, cellular telephone comprising a service area judging circuit (6) to sense when the mobile telephone apparatus is inside or outside the service area from the reception signal and an acceleration or vibration sensor (7) to sense movement where if the mobile telephone is outside the service area *and in the static condition*, the microprocessor (8) stops supplying power to the radio communication circuit (2)).

Sato does not teach wherein the communication device uses a service discovery protocol to look for a fixed position sensor for the sensor information to adjust the power consumption level of the communication device in response to the sensor information.

Krishnamurthy teaches an on-demand search mechanism to build a path to the destination in an ad-hoc network, the network applicable to sensor deployment, paragraphs 0002 and 0006. The sensor connected in the wireless ad-hoc network of Krishnamurthy is interpreted to be any type of sensor, fixed or mobile. Krishnamurthy identifies several on-demand search/routing protocols, paragraph 0002. Consequently, these three elements of Krishnamurthy teach "a service discovery protocol of a wireless ad hoc network to look for a fixed position sensor".

Since Sato teaches it is necessary to determine the service area of the network, It would have been obvious to one of ordinary skill in the art at the time of the invention to gather the necessary position data externally to the internal sensor system of Sato by

utilizing the network of Krishnamurthy for access to sensor information or position data deployed within a wireless ad-hoc network.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US 5,953,677) in view of Miyashita (US 5,586,182).

As to claim 6, Sato teaches an apparatus comprising at least one sensor communicating sensor information to a communication device within a network to control a power consumption level of the communication device wherein the at least one sensor determines *the movement* of the communication device and if the wireless communication device is static, the communication device is placed in a stand-by mode to reduce overall power consumption of the communication device in response to the sensor information (figures 1 and 2, column 2, lines 17 to column 3, line 51, cellular telephone comprising a service area judging circuit (6) to sense when the mobile telephone apparatus is inside or outside the service area from the reception signal and an acceleration sensor (7) to sense movement where if the mobile telephone is outside the service area *and in the static condition*, the microprocessor (8) stops supplying power to the radio communication circuit (2)).

Sato teaches a movements sensors, accelerometer, vibration and speed, column 1, lines 45-54, but does not teach wherein the at least one sensor determines an *orientation of the communication device* and if the position of the wireless communication device is a first orientation, the communication device is placed in an active power mode and if the position of the communication device is a second

orientation, the communication device is placed in a stand-by power mode to reduce overall power consumption.

Miyashita teaches a portable telephone set comprising a gyro (18) for detecting inclination of the main body to control power (17) to a display (16), figure 1, column 3, lines 27-64. Miyashita further teaches the display control portion starts power to the display when the inclination angle information indicates the main body is in a substantially horizontal orientation and stops power to the display when the inclination angle information indicates a variation or more vertical orientation of the main body from the horizontal, column 4, lines 30-45.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add to the movement sensor and power control method of Sato the gyro sensor of Miyashita to also sense the orientation of the mobile telephone to reduce power consumption.

Allowable Subject Matter

Claim 13 is allowed. The prior art made of record doe not teach a method of improving battery life of a wireless communication device comprising sensing environment conditions within a predetermined distance of the wireless communication device, determining a usage pattern match based on the sensed environmental conditions and adjusting a power consumption level in accordance with the usage pattern match.

Conclusion

The prior art made of record and not relied upon but considered pertinent to applicant's disclosure includes Alanara et al. (US 6,067,460).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blane J. Jackson whose telephone number is (571) 272-7890. The examiner can normally be reached on Monday through Friday, 9:00 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BJJ